CLAIMS

PCT/BR2005/000007

1. "PIT FURNACE CLOSING SYSTEM", characterized by the fact that two beams are used (2), as well as A304* stainless steel square iron bars (4) laid across the border of the furnace structure (1) and 5 supported over said beams, and, so as to close the furnace, pieces of cloth wrap for high temperature are used for closing the furnace (3), a species of box in a stainless steel screen was further developed, folded and having a 10 ring, which is filled in with remains of wraps, and the other form used is a biparted lid in a thin plate with wraps fixed to it and a cut for the upper part of the supporting device of the parts to pass; and by the supports for the parts to be "cage"-like devices (5), which are suspended inside the furnace (1) supported in the two beams (2), not 15 touching the floor of the furnace (2), and being several the conditioning systems.

2. "PIT FURNACE CLOSING SYSTEM", according to claim 1, characterized by the fact that said pit furnace (1) has thermopairs that may be in contact with the part entering into the mouth of the furnace (1), or may be loosen ones, and their heating ends are located in the central direction of each heating zone (thermopairs bar).

25 3. "PIT FURNACE CLOSING SYSTEM", according to claim 1, characterized by the fact that the pit furnace does not make use of gas and, therefore, to treat raw or previously milled parts,

generating the single means for making very large parts and very heavy ones, since they are hung in beams (2) external to the furnace (1) and, which, for being not submitted to the heat, are always cold and always resistant to support weight.

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- 4. "PIT FURNACE CLOSING SYSTEM", according to claim 1, characterized by the fact that the pit furnace foresees a variant with oil heating and having a rectangular format, which is coated with refractory bricks fixed with stainless steel pins with an end of the pin is welded in the plate of the furnace and the other part is welded in a square plate, which may contain a possible movimentation of the vertical walls of the furnace. The burners may be fed with diesel oil or with viscous fuel oil.
- 5. "PIT FURNACE CLOSING SYSTEM", according to claim 1, characterized by the fact that the opening between the beams (2) is covered with wraps (3) and said wraps are supported over square A304" stainless steel bars (4), having a diameter of 2 inches.
- 5. "PIT FURNACE CLOSING SYSTEM", according to claim 5, characterized by the fact that the opening between the beams (2) is closed with stainless steel coin screen plates (13), filled in with wraps in flocks, and they are supported over square A304" stainless steel bars (4), having a diameter of 2 inches, and the plates touch each other when there is no device for supporting the parts 14, and when there is the device for supporting the parts (14), and when there is the device for

supporting the parts (14), said plates get closer to each other at the maximum point, until they touch said device. All of the other openings are covered with wrap flocks or pieces of wrap.

- 5 7. "PIT FURNACE CLOSING SYSTEM", according to claim 5, characterized by the fact that the system in reference foresees biparted lids (15) that touch one another when there is no load, and, when there is load, they touch the supporting device of the parts (14), leaving the device's internal space to be covered with wrap, being a variation forecast in which the biparted lids (15A) have a cut (16) for mating with the bars of the device for supporting the parts (14).
- 8. "PIT FURNACE CLOSING
 15 SYSTEM", according to claim 5, characterized by the fact
 that the lids have holes (17) and are used in the situations
 in which thin and hung parts are put into the furnace
 without the device for supporting the parts, that is, when
 the parts are fastened to the ring by means of weld, and,
 20 after the part is removed, it is closed with lids with the
 same measures of the holes (17).
- 9. "PIT FURNACE CLOSING SYSTEM", according to claim 5, characterized by the fact that the beams (2) may be laid close to the internal diameter of the mouth (18) of the furnace. There will be, in this case, biparted doors (19) with rollers so as to aid with the displacements outwards or inwards. When the doors are closed, the device for supporting the parts (14) must

have standard measures and a square plate so as to complete the closure; and in the case of the putting into the furnace being with two devices for supporting the parts (14), a plate (10) that is adapted between the two devices is foreseen.

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